

Amendment to the Drawings:

The attached drawing sheet of Fig. 5 includes a change made thereto and replaces the original drawing sheet of Fig. 5. In Fig. 5, the reference character “50”, not mentioned in the description, has been deleted, as is indicated in the annotated drawing sheet further attached.

Attachments: Replacement Sheet of Fig. 5
 Annotated Sheet Showing Change in Fig. 5

REMARKS/ARGUMENTS

Claims 1-12, inclusive, remain in this application. While no Claims have been allowed, there is indication by the Examiner of allowable subject matter recited in dependent Claims 4, 6, 10 and 12 if rewritten in independent form. Applicants acknowledge the Examiner's indication of allowable subject matter in these dependent Claims, but forgoes rewriting them in independent form at this time in lieu of the foregoing amendments made to independent Claims 1 and 7 and in view of the remarks made below regarding their patentability over the prior art references applied in this case.

The Specification has been objected to by the Examiner. In particular, The Examiner has noted the incorrect designation of reference character "18b" instead of "18a" at page 13, line 24 of Specification and required its correction. Accordingly, Applicant has amended the Specification to correct the typographical error where it has been noted by the Examiner as well as further found in the same paragraph [0030] of the Description of the Invention at page 14, line 5 of the Specification. The Examiner's objection to the Specification should now be removed.

The drawings, particularly Fig. 5, were further objected to by the Examiner for failing to comply with 37 CFR 1.84(p)(5), in this case for designating the reference character "50" not mentioned in the description. Applicants acknowledge this non-compliance and have accordingly amended Fig. 5 to remove the unnecessary reference character. A proper "Replacement Sheet" for Fig. 5 as well as an annotated sheet indicating the corrective action are submitted herewith in compliance with 37 CFR 1.121(d), and the objection to the drawings should now be removed.

Claims 1, 2, 7 and 8 stand rejected under 35 U.S.C. 102(e) as being anticipated by Del Bianco et al (U.S. Patent 6,859,327). This rejection is now respectfully denied especially in view of the foregoing amendment.

Insofar as pertinent, Del Bianco et al. teaches a helmet-mounted device for displaying thermal images to a fireman that includes an infrared camera (13) adapted to mount upon the front of fireman's helmet (2) by means of a generally "x-shaped" belt harness comprising a fixed length main belt (8) made to run along the top of the helmet and an elastic crossing belt (9) with end clamps (24) that hold the harness tightly in position across the width of the helmet. The crossing belt is slidably coupled to the main belt, being inserted and guided through openings

(10) in the back end (11) of the main belt. The front end (12) of the main belt is attached to the top of the infrared camera so that the camera may rest upon the forward front of the helmet in a central position, as shown in Fig. 5, with a wedge-shaped mounting adapter (16) being further attached to the bottom of the camera to tilt the camera toward the horizontal. A hook (21) is further connected to the mounting adapter and made to engage the front edge (22) of the helmet for releasably attaching the mounted camera to the front of helmet body. While this described hook engagement allows the harness-mounted camera to rest in a central position upon the front of the helmet, there is no teaching or even suggestion that it locks or stations the camera along the centerline of the helmet while being worn and moved in various attitudes.

Applicant, on the other hand, discloses and now more particularly claims a thermal imaging system (10) assembled and mounted in fixed position upon a protective helmet (12), such as one worn by a firefighter or other emergency personnel, so that it displays an improved infrared image of a scene immediately in front of the wearer while he maintains direct visual contact with the surrounding site. The present helmet-mounted system comprises an infrared camera assembly (14) housed and stationed in fixed position along the centerline of the helmet by means of a specially adapted bracket assembly (28) releasably engaged and interlocked between the camera assembly and the front of the helmet so that the camera assembly is maintained and held in a stationary position forwardly directed along the centerline of the helmet during its use and operation. As described in the present Specification, the bracket assembly is comprised of mating base and upper bracket members (30, 32), each being rigid in construction and attached respectively to the front of the helmet and the bottom of the camera assembly. The bracket assembly members are formed having complementary configurations that permit mutual engagement and interlocking in axial alignment with the centerline of the helmet so that in the engaged and locked position, the bracket assembly ensures and maintains the proper centerline mounting of the camera assembly on the front of the helmet regardless of movement of the wearer's head. Applicants' described bracket assembly, recited now more particularly in the Claims as the "bracket means", reflects a clear distinction in both structure and function over the flexible harness arrangement described for positioning the camera on the helmet of Del Bianco et al., which, with all due respect, fails to address the importance of maintaining the camera position along the centerline of the helmet, as is described in the present application, and accordingly, lacks the teaching of the structure designed to do so.

As first disclosed by the Applicants and described in the present application, utilization of the “bracket means” for mounting the infrared camera assembly along the helmet centerline not only balances the weight distribution but more importantly establishes the field of view of the camera directly forward and normal to the facing direction of the user-wearer at all times during operational use. With the bracket assembly engaged and locked, the infrared camera assembly is stationed in fixed position along the centerline of the helmet and maintained in such central position regardless of any turning or tilting of the wearer’s head. As set forth in the Applicants’ Specification, the centerline mounting that is maintained by the axially aligned and interlocking engagement of the bracket assembly displays a normal, more natural image to the user and further eliminates the adverse effects of parallax in viewing the displayed images that can cause spatial discontinuities and disorientation of the user-wearer particularly when moving about. The axially aligned and interlocking features of the “bracket means” are neither taught nor even suggested in the Del Bianco reference and the useful benefits of the present invention not even addressed in the applied reference.

Independent Claims 1 and 7 have been amended and now more particularly recite the novel structural and functional features of the “bracket means”, particularly its axial alignment and releasable interlock along the centerline of the helmet that ensures the proper stationary position of the infrared camera. These characteristic features of the bracket assembly, that allow the infrared camera assembly to be releasably stationed in fixed position along the centerline of the helmet, are not found in the Del Bianco reference but only first described by the Applicant in this case.

Accordingly, it is respectfully submitted that Claims 1 and 7, as amended, as well as respective dependent Claims 2 and 8, are patentably distinguishable over Del Bianco et al., being neither anticipated by nor obvious in view of the applied reference. In view of this amendment, therefore, the prior art rejection of Claims 1, 2, 7 and 8 based on the Del Bianco et al. reference should be removed.

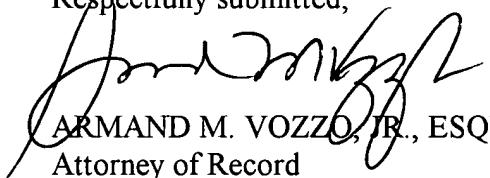
Claims 3, 5, 9, and 11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Del Bianco et al. The rejection of these dependent Claims as obvious in view of the applied reference is now respectfully denied based upon the foregoing amendment of the independent Claims 1 and 7 from which Claims 3 and 5, and Claims 9 and 11 respectively depend, and further the reasons stated above in these Remarks/Arguments regarding the patentability of the

parent Claims, as now amended, over the Del Bianco et al. reference. Accordingly, it is respectfully submitted that Claims 3, 5, 9 and 11, each of which recites a further feature and particular limitation of the respective dependent Claims 1 and 7, are likewise patentably distinguishable over the Del Bianco et al. reference and not obvious in view thereof. It is therefore respectfully requested that the standing rejection of Claims 3, 5, 9, and 11 under 35 U.S.C. 103(a) based upon Del Bianco be removed.

The Applicant has considered the other references made of record and the claims, as now amended, are deemed patentable over those references.

In view of these remarks, therefore, it is submitted that all grounds for the rejections have been removed by the foregoing amendment, and that the claims, as now amended, are in condition for allowance. A prompt reconsideration and timely allowance of the application with amended claims are therefore earnestly solicited.

Respectfully submitted,



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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Mail Stop Amendment, PO BOX 1450, Alexandria, VA 22313-1450, on October 19, 2005.

Date: 10-19-05



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Annotated Sheet Marked-Up to Indicate Change

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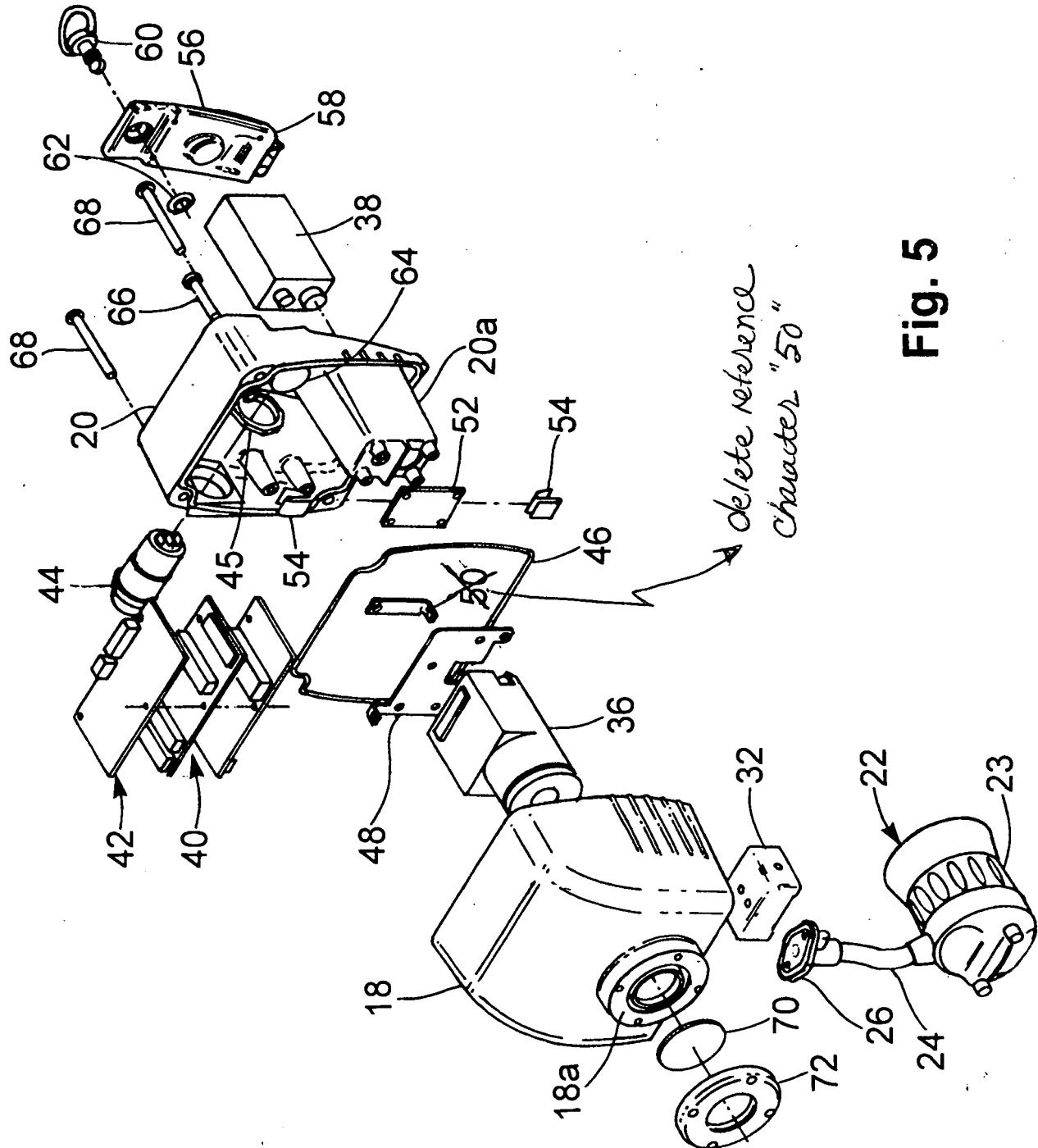


Fig. 5